A Contrastive Study of the Effectiveness of Comparative and Expository Advanced Organizers on the Achievement of 4th preparatory Students in English Grammar.

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Abstract

The objective of this study is to investigate the differences in the effect of comparative and expository advanced organizers on the achievement of 4th preparatory students in English grammar. The study is limited to the 4th preparatory students in Ramadi schools for boys during the first term of the academic year 2012-2013. To achieve the purpose of the present study, it is hypothesized that there is no significant difference between the mean scores of the achievement of the first group who is given comparative advanced organizers and the second group who receives expository advanced organizers.

To test the above hypothesis, a sample of 60 4th preparatory students from Al-Meethaq secondary school has been randomly chosen and distributed into two groups. The first group (30 students) has been exposed to comparative advanced organizers, while the second group (30 students) has been exposed to expository advanced organizers. Both assigned groups are equalized in terms of certain variables. The experiment lasted four weeks. During this period, the researcher himself taught the two groups to control the teacher variable. At the end of the experiment, students have been post-tested on the same subject matter which is constructed by the researcher. The data collected has been analysed by using t-test formula at 0.05 significance level. The findings reveal that there is a significant difference between the mean scores of the two groups in favour of the first group since its mean score is higher than that of the second group.

On the basis of the findings, the study ends with a number of recommendations.

الخلاصة

تهدف هذه الدراسة الى استقصاء أثر المنظمات المقارنة والتمهيدية المتقدمة في تحصيل طلبة الرابع الإعدادي في قواعد اللغة الانكليزية ويعتبر طلبة الرابع الإعدادي في مدارس الرمادي للبينين حدود هذه الدراسة اثناء الفصل الأول للسنة الدراسية 2012-2013 ومن أجل تحقيق هذا الهدف افترض الباحث بأنه لا توجد فروق ذات دلالة إحصائية في تحصيل طلبة الرابع الإعدادي بين المجموعة الاولى التي درست حسب المنظمات المقارنة والمجموعة الثانية التي درست حسب المنظمات التمهيدية.

ولاختبار فرضية الدراسة اختيرت عينة مكونة من 60 طالب من طلاب الرابع الإعدادي في ثانوية الميثاق للبنين عشوائياً حيث وزعت إلى مجموعتين المجموعة الاولى وتضم (30 طالبة) التي درست حسب المنظمات المقارنة ، والمجموعة الثانية تضم (30 طالبة) و التي درست حسب المنظمات التمهيدية. كلتا المجموعتين كوفئت في بعض المتغيرات واستمرت التجربة مدة (4 أسابيع) وخلال تلك المدة قام الباحث بتدريس المجموعتين بنفسه وذلك للسيطرة على متغير المدرس ومن بعدها اختبر الطلاب بالمادة الدراسية المحددة. وعند تحليل البيانات باستخدام معادلة الاختبار التائي تحت مستوى أهمية 0،05أشارت النتائج إلى وجود فروق ذات دلالة إحصائية في تحصيل طلبة الرابع الإعدادي بين المجموعتين ولصالح المجموعة الاولى التي دًرست حسب المنظمات المقارنة .

1. Introduction

1.1 The Problem of the Study and its significance

The contemporary views of language teaching give a prominent role for interaction while learning, for the reason that " language is acquired as learners are actively engaged in attempting to communicate in the target language" (Nunan , 2001: 51).

Learning English as a foreign language has been , for a long time, a real problem for the majority of Iraqi students. Motivation for learning is an important element in the learning process. Yet, some students come to new units of study with low motivation because of previous failure and inadequate schemata (Myers, 1995: 516).

The problem of the present study is expressed in this question: Do comparative and expository advanced organizers improve students' achievement in English grammar? Due to the fact of the students' low motivation, new methods and strategies should be experimented. One of these strategies which is adopted in this study is the use of comparative and expository advanced organizers which may play a great role in breaking the routine tasks followed in teaching English as a foreign language (Johnson, 2004: 2).

Many studies state that the brain retains information in a hierarchical organization and arranges it in partial ways that lead to understanding and realization of meaning. It is claimed in some studies that by the use of advanced organizers, the learners are taught how to use and transfer their existing knowledge to new situations.

Since grammar is considered the core of language, its effective teaching will inevitably lead to learners' better and successful learning. Yet, teaching grammar in secondary schools has always been characterized as ineffective.

Therefore such an important strategy with all of these previously mentioned advantages is worth to be investigated by conducting a practical study to investigate its effect on the students' achievement in English grammar.

It is hoped that the present study will be useful to the students of secondary schools to make use of their background knowledge, teachers of English at various levels of learning, and other people who are specialized in education and teaching English as a foreign language and other disciplines.

1. 2 Aim of the Study

This study aims at examining the difference in the effect of comparative and expository advanced organizers on the achievement of 4th preparatory students in English grammar.

1. 3 Hypothesis of the Study

It is hypothesized that there is no significant difference between the mean scores of the achievement of the first group who is given comparative advanced organizers and the second group who receives expository advanced organizers.

1. 4 Limits of the Study

This study is limited to the 4th preparatory students in Ramadi schools for boys during the first term of the academic year 2012-2013. It is also limited to the teaching of the first two units of Book 8 (Iraq Opportunities). Only grammar is the focus of the present study.

1.5 Definitions of Basic Terms

1.5.1 Advanced Organizers :

- They can be defined as tools or a mental learning aid to help students integrate new information with their existing knowledge leading to " meaningful learning " as opposed to rote memorization. They are devices to activate the relevant schema or conceptual patterns so that new information can be more readily subsumed into the learner's existing cognitive structure (Ausubel , 1978: 75).

- Woolfolk and Margetts (2007: 299) define advanced organizers as information that help students develop conceptual frameworks to understand patterns and make bridge to previous materials when learning new concepts and information in English, history, geography, mathematics and science.

The Operational Definition:

Advanced Organizers are the information and concepts presented at a higher level of abstraction, generality and inclusiveness arranged hierarchically (from concrete to abstract, from known to unknown, from general to detailed). They are introduced to the 4th preparatory students in advance of the lesson for explaining, integrating and interrelating their prior knowledge to the new material being presented.

1.5.2 Achievement :

- It is defined as "the mastery of what has been learnt or the degree of acquisition achieved by an individual in any instructional material or in a specific educational field (Allam, 2000:305).

-It also refers to the amount of acquired knowledge that a person gets according to specific objectives in a certain period of time, usually measured by test scores or by marks assigned by teacher or by both (Webester , 1971: 16).

The Operational Definition:

Achievement is the amount of knowledge and experience that the 4th preparatory students can acquire during their study of specific topics in English. It can be measured in marks got by the students through their responses to items of the test constructed by the researcher at the end of the experiment.

2. Literature Review

2. 1 Advanced Organizers

Ausubel describes advanced organizers as " introductory material that is presented ahead of the learning task and at a higher level of abstraction and inclusiveness than the learning task itself. Its purpose is to explain, integrate and inter-relate the material in the learning task with previously learned material" (Ausubel, 1963: 148).

2.1.1 Comparative Advanced Organizers:

The main goal of comparative advanced organizers is to activate existing schemata. They act as reminder to bring what is relevant into the working memory. By acting as reminders, the organizer points out explicitly " whether already established ideas are nonspecifically or specifically relevant to the leaning material" (Robinson, 1981: 149). A comparative advanced organizer is used both to integrate as well as discriminate. It integrates new ideas with basically similar concepts in cognitive structure as well as increases discriminability between new and existing ideas which are essentially different (Woolfolk, 2010: 289). This kind of organizers requires students to compare two objects that are relatively similar or different.

Teachers use comparative advanced organizers, when the instructional material is familiar to students and when they have prior knowledge and experience. In this case, comparative advanced organizer acts as a thinking bridge to help students incorporate or discriminate new information from that already known (Al-Ani, 2004: 25). A comparative organizer is introduced in advance of the lesson when anchoring ideas and experiences are available in the learners' cognitive structure (Abu Jado, 2011: 337). This type of advanced organizers can serve in teaching, for example, when the teacher makes a comparison between present simple and present continuous as in table (1) below:

Table (1): Two Tenses

Present Simple	Present Continuous
- I work in Baghdad.	- I am working in Baghdad.
- He plays tennis.	- He is playing tennis.
- They do their homework.	- They are doing their homework.

2.1.2 **Expository** advanced organizers

Expository organizers provide new knowledge that students will need to understand the incoming information (Woolfolk, 2010: 289). They are often used when the new learning material is unfamiliar to the learners. They often relate what the learner already knows to the new unfamiliar material. An expository

organizer provides the learners with a conceptual framework for unfamiliar material to make it more plausible to them (Kalmes, 2005: 16).

Expository organizers can be used when no anchoring ideas and experiences are available to the learner, they emphasize content and link the essence of the new material with some relevant previously acquired concepts (Curzon, 1990: 414). Expository organizer begins at a high level of generality than the concept to be presented in order to prepare principal bases that students need to understand (Arif, 1997: 189). By the use of expository organizers, the teacher can provide an introductory overview in which the entire lesson is presented in outline form. According to Botwinich (1978: 186), they provide an early opportunity for the learners to see the " map " which follows. They could take the form of an introductory statement about the content of a lesson or a series of readings followed by several key questions for the learners. These questions may help the learners to organize the material as they read.

2.2 Previous Studies

It is necessary to survey some relevant studies that are related to the influence of advanced organizer strategies as an independent variable on different dependent variables such as achievement, attitude, retention, acquisition, etc. The researcher reviews these studies because they can be considered a starting point for maturing the present study. The focus in this section is on showing how these studies are similar to this study in terms of aims , samples, procedures and findings. These studies are arranged chronologically according to their date priority as follows:

2.2.1 Dahlan (2003)

The aim of the study was to investigate the effect of using advanced organizer strategies on the achievement and retention of second year intermediate students in Arabic grammar. The research sample consisted of 100 males students distributed into two groups (fifty students for each group). The researcher used the experimental design of two equivalent groups, one of them was the experimental group taught by using advanced organizer strategies, and the other was the control group taught by the conventional technique. The experiment continued six weeks. To achieve the aim of the study, the researcher prepared post test to measure students' achievement of the two groups. After two weeks, the researcher applied the same test to measure students' retention of information in Arabic grammar.

The researcher used the t-test to obtain the findings which show that ; (1) There was a significant difference between the mean scores of the two groups in favour of the experimental group which was taught according to advanced organizer strategies, and (2) There was a significant difference between the mean scores of the two groups in retention of Arabic grammar in favour of the experimental group.

2.2.2 Jawad (2009)

This study intended to investigate:1-The impact of using photographic riddles on second intermediate students ' achievement in physics,2-The impact of advanced organizer strategies on those students' achievement in physics, and 3-Whether photographic riddles or advanced organizer strategies have a greater effect on the students' achievement in physics.

To fulfil these aims , a sample of ninety nine second intermediate students distributed into three groups equally (33 students as the first experimental group, 33 students as the second experimental group and 33 as the control group). The first experimental group was taught according to the photographic riddle strategies, the second experimental group was taught according to the advanced organizer strategies, whereas the control group was taught according to the conventional technique. Results state that: 1.There was significant difference between the first experimental group and the control group in favour of the first one.

2.There was significant difference between the second experimental group and the control group in favour of the second experimental one.

3.There was significant difference between the first experimental group and the second experimental group in favour of the second experimental group.

2.2.3 Ahmed (2012)

The main objective of this study was to measure the comparative effectiveness of advanced organizer model and traditional method in teacher education course at the M.A. level. The population of the study was M.A. education students studying teaching of English and the sample consisted of 46 student teachers. On the basis of pretest scores and some variables of equivalence, they were placed in two groups randomly (experimental group and control group). Each group had 23 students. The hypotheses were framed and tested by applying independent sample t-test and dependent sample t-test, the results showed that there was no significant difference observed in the mean scores between the achievement of the experimental group which was taught according to the advanced organizer model and the control group which was taught according to the traditional method.

2.2.4 Rezaie (2012)

The purpose of this study was to investigate the effect of interrogative advanced organizer in the form of questions versus declarative advanced organizer on EFL learners' comprehension of ESP reading tasks. The sample of the study was 64 pre-university students studying electronics selected randomly and divided into two equal groups of 32 students according to their scores in English language course in the previous years. To achieve the aim of the study, the researcher prepared a post-test which involved four unseen English passages in the field of electronics. Every passage had about 5 or 6 multiple-choice reading comprehension items at the end. Before starting the reading task, the first group received some previous information about the content of every passage declaratively and the second group received this previous information interrogatively. After analysing the data, the result revealed that there was a significant difference between the first group which received some previous

knowledge about the content of every passage declaratively and the second group which received this previous knowledge interrogatively in favour of the second one.

2.2.5 Discussions of Previous Studies

After presenting these studies, comparisons and discussions between these previous studies and the current one in terms of the main components (aim, sample , research design , procedure, etc.) is necessary to show the relevance of these studies to the present study.

2.2.5.1 Aim

The previous studies are differ from each other in strategies tested in their aims. The aim of Dahlan's study (2003) is to determine the effect of advanced organizer strategies on the achievement and retention of second year intermediate students in Arabic grammar. Jawad's study (2009) is concerned with photographic riddles and advanced organizer strategies and their impact on second intermediate students' achievement in physics. The main objective of Ahmed's study (2012) is to measure the comparative effectiveness of advanced organizer model and traditional method in teacher education course at the M.A. level. Rezaie's study (2012) aimed at finding out the effect of interrogative advanced organizers versus declarative advanced organizers on EFL learners' comprehension of ESP reading texts. In correlation with the above studies , the present study tends to be more comprehensive than the studies surveyed here because it surveys two kinds of advanced organizers (comparative ad expository).

2.2.5.2 Sample

The samples of the studies surveyed are different in size. They range from 46 students as in Ahmed's study (2012) and 100 as Dahlan's study (2003). The present study is similar to that of Rezaie's study (2012) in terms of distribution into two groups , but the difference lies in the number of subjects and the gender involved ; that is, 30 male students following comparative organizers, and 30 male students following the expository.

2.2.5.3 Procedures

All the previous studies mostly followed the same procedures to attain the proposed aims. They selected random samples which were assigned to three groups as in Jawad's study (2009). In the current study, the researcher has used an experimental design of two groups (1st group and 2nd group) like the studies of Dahlan (2003) , Ahmed (2012), and Rezaie's (2012). Achievement tests were conducted in all studies in order to measure the effect of advanced organizer strategies as an independent variable.

2.2.5.4 The Subject or Educational Material

Subject was heterogeneous in the previous studies. One of them dealt with scientific materials like physics as in Jawad's study (2009). And some dealt with social subjects like Arabic grammar as in Dahlan's study (2003), while others dealt with English language as in Rezaie's study (2012). The current study is done in the area of English grammar.

2.2.5.5 Statistics

Various statistics for analyzing the data were used in the previous studies according to the aims and hypotheses of each. In the present study, the researcher has used the mean, t–test, chi–square and Pearson formula of correlation to achieve the aims of the present study and test its hypothesis.

3. Procedures of Collecting Data

3.1 The Experimental Design

In order to achieve the aims of the present study, the researcher used the randomized design, and post-test one (Isaac and Michael, 1977: 43). The two groups of 4th preparatory students of Al-Meethaq secondary school were selected randomly to be the sample of the study. The first group was taught by using comparative advanced organizers and the second was taught by expository advanced organizers. To get a clear picture of the experimental design, see Table(2).

Table (2) : The Experimental Design

Groups	Independent Variable	Instrument of Measurement	Dependent Variable
Group 1	Comparative advanced organizers	Achievement Test in Grammar	Students' Achievement
Group 2	Expository advanced organizers		

3.2 The Population and Sample of the Study

The population of the present study included the 4th preparatory male students in Ramadi schools during the first term of the academic years 2012–2013. After visiting a number of schools, the researcher has chosen Al-Meethaq secondary school randomly by writing the names of the schools on slips of paper and putting them in a container and drawing one of them. The sample of the study consists of (65) students in two sections: section (A) represents the first group who receives comparative advanced organizers and section (B) represents the second group who receives expository advanced organizers . The researcher excluded three repeaters from the first group and two from the second group since they affect the results of the study. Therefore,the total number of the sample is (60) ; (30) students in each section as shown in Table (3).

Table (3): The Study Sample

Groups	Sections	Type of Treatment	No. of Students before Excluding	No. of Students after Excluding
Group1	A	Comparative advanced organizers	33	30
Group2	B	Expository advanced organizers	32	30

3.3 Equalization of the two groups

In order to ensure that the two groups are equivalent, the researcher has done his best to control certain variables which may affect the students'

achievement. These should be taken into account and then equalized. Depending on the information taken from the students archives available at the school, the two groups have been equalized on these variables: the age measured in months, the level of parents' education, students' levels in English in the previous year, the total averages in the previous academic year see Tables (4 , 5 and 6).

Table (4): The Mean, Standard Deviation , and t-Value of the students' Equivalence in Certain Variables.

Variable	Groups	N	Mean	Standard Deviation	DF	Calculated t-value	Tabulated t-value	Level of significance
Age	Group 1	30	205.13	9.46	58	o.338	2.000	0.05
	Group2	30	204.1	13.81				
Students' levels in the previous year	Group 1	30	62.80	14.45	58	0.725	2.00	0.05
	Group2	30	63.40	12.53				
Total averages	Group 1	30	65.34	7.23	58	0.684	2.00	0.05
	Group2	30	64.10	6.82				

Table (5): Chi-Square Value for the Students' Fathers’ Education

Groups	N	Level of Education			Chi – square value	
		Primary and less	Intermediate and secondary	Diploma and bachelor	Calculated	Tabulated
Group1	30	13	8	9	0.321	5.991
Group2	30	12	10	8		

Table (6): Chi-Square Value for the Students' Mothers’ Education

Groups	N	Level of Education			Chi – square value	
		Primary and less	Intermediate and secondary	Diploma and bachelor	Calculated	Tabulated
Group1	30	13	10	7	0.090	5.991
Group2	30	14	9	7		

From the above statistical data, the researcher can conclude that the students of the two groups are equivalent because there are no significant differences at 0.05 by using t-test for two independent samples and chi-square.

3.4 Factors Influencing the Internal and External Validity

In any experiment, the dependent variable may be affected by some extraneous variables other than the independent variable. These variables have to be held constant in order not to be confounded with the obtained results . Huitt, et al. (1999:1) mention that one of the keys to understand internal validity is the recognition that when it is associated with experiment research it refers both to how well the study is run (research design, operational definitions used, how variables are measured, that is/isn't measured, etc.) and how confidently one can conclude that the change in the dependent variable is produced solely by the independent variables and not extraneous ones.

The researcher tried to manipulate and control them as far as possible in order to avoid confounding the results of the study. These factors include : retroactive history, experimental mortality , selection bias , maturation, classroom environment , the teacher, the timetable, and instrumentation.

3.5 The Instructional Material

The material is taken from Book 8 (Iraq Opportunities) for 4th preparatory students which consists of four units. This study is limited to the teaching of the first two units of this book. The two groups were taught the same material by the same teacher (the researcher), but they had different techniques and strategies for each. In other words, the researcher taught the first group according to comparative advanced organizers whereas the second group was taught by using expository advanced organizers.

3.6 Application of the Experiment

After the requirements of the experiment were provided and all instruments prepared, the experiment started on the 7th of October , 2012. The researcher himself taught the two groups in order to control the instructor variable. The first two units of the prescribed textbook8 were covered during the experiment. The lessons were arranged for teaching both groups in four periods per a week. As mentioned earlier, the first group was taught according to comparative advanced organizers whereas, the second group was taught by using expository advanced organizers. The experiment started without telling the students that they were participating in an experiment to avoid hawthorn effect, i.e., “the effect that experimentation has on subjects due to their awareness of being specially treated” (Robinson, 1981:114). The experiment lasted four weeks and ended on the 4th of November, 2012 with the administration of the post test.

3.7 The Post- Test Description

Al-Hamash and Al-Juboury (1982:172) define post-test as a test which is given at the end of the course or at the end of the period during which students' progress is being evaluated. An achievement test has been constructed to fulfil the aim of this study and test its hypothesis that are stated earlier. The first step taken in constructing the test is to determine its general objectives as mentioned in Valette words (1977: 17) "the key to successful test construction is a clear objective involved". The purpose of this test is to evaluate students in grammar. So, the test items have been constructed in the light of the behavioral objectives

of the material. The test is designed to compute the amount of language acquired by students within a certain period of education. It also assists the educator to evaluate the effectiveness of his instruction; "language tests can be a valuable tool for providing information that is relevant to several concerns in language teaching" (Bachman & Palmer, 2000: 8).

The test as it is in Appendix consists of three questions that encompass equally the level of recognition and of production; The first question deals with structures involving present simple tense, present continuous tense, present perfect tense and passive voice. The second question consists of 8 multiple choices items. While the third question contains jumbled words which requires the students to form meaningful sentences.

3.7.1 Validity of the Post - test

The term validity refers to "the degree to which the test actually measures what it is intended to measure" (Harmer (2001: 322). There are several types of validity such as face validity, content validity, construct validity, etc.

Face validity is considered the suitable type to find out whether the instruments are valid to achieve the aim of the present study or not. So the test has been exposed to a jury of experts for evaluation, a jury of university teaching staff members who are known for their long experience in the field of TEFL, linguistics, language testing, and statistics. The post-test items have proved to be valid and appropriate for the 4^{th} preparatory students. The test items are appropriate to measure the purposes they are designed for and gain 0.95 agreement of the total jury members , except for some recommendations and modifications which are taken into consideration. The jury members are arranged according to their academic ranks alphabetically:

1. Prof. Amir Benia Al-Kubaisy , Ph.D.
2. Prof. Nahida Majeed Taha, Ph.D.
3. Prof. Muslih Shwaysh Ahmed, Ph.D..
4. Assist. Prof. Ahmed Hameed Obeid , Ph.D.
5. Assist. Prof. Alaa Ismail Chaloob, M.A.
6. Assist. Prof. Ayad Hammad Ali , M.A.
7. Instructor. Juma'a Qadir Hussein , M.A.
8. Instructor. Hutheifa Yousif Turkey, M.A.
9. Instructor. Saad Juma'a Farhan , M.A.
10. Instructor. Jaleel AbdulIlah Alawy, M.A.

3.7.2 Pilot Study

Johnson (1998:2) states that pilot studies are small studies which allow the procedures and techniques to be solidified as well as generating preliminary data. The pilot test was carried out before it took its final shape. The purposes behind the pilot study are to :1-determine the workability of the test and the clarity of its instructions; 2-estimate the precise time needed to answer the test items;3-calculate the reliability of the test;4-analyze the test items in order to find out the difficulty level and discrimination power of the items; 5-provide an opportunity

for the researcher to elicit any suggestions which may be put forward by the trainees during the discussions held after the testing sessions.

The test has been given to twenty five students from Sumayah secondary school selected randomly from the original population of this study. The instructions concerning what the testees are to do during the test were explained by the researcher to the extent that no misunderstanding could occur. The pilot test was administrated on the 28th of October, 2012. The test was found out to take between 25 to 35 minutes. So the average length of time needed for the test is 30 minutes, which means that the time of less than one lesson is needed for taking the test, and it also shows that the directions of the test are clear and that there is no ambiguity in it. Relying on these results, the test took its final version.

3.7.3 Reliability of the Post-test

Reliability refers to the stability and consistency of the measurement of the test scores (Harris, 1969:14). The more similar the scores would have been, the more reliable the test is said to be (Hughes, 1989:29). There are several ways of measuring the reliability of tests such as test-retest, split-half, Kuder-Richardson, and equivalent-forms of methods (Fox, 1969: 353 -54). In the present study the researcher has ensured the stability of the test questions by using Pearson Correlation Coefficient formula. The split-half reliability method had been used since this method requires only one form and one administration of the test. The test papers are numbered and then divided into two halves according to their odd and even numbered items (Vandalen: 1979, 139 ; Harris: 1969, 15). After applying statistics, it has been found that the correlation coefficient of reliability is 0.93 which is considered a high stable correlation.

3.7.4 Items Analysis

Item analysis can be defined as “a means of estimating how much information each single item in a test contributes to the information provided by the test as a whole.It enables the test writer to find out how easy or difficult an item is,and how well it distinguishes the better students from the poorer ones” (Cervants,1989:11).

After scoring the papers, they have been arranged in order from the highest to the lowest. Then two subgroups of the test papers were taken, an upper group consisting of 27 percent of the total group who achieve highest scores on the test, and a lower group comprising 27 percent of papers from those who achieved lowest scores.

For each test item, the researcher has counted the number of times each response to each item was chosen on the sheets of the upper group and did the same separately for the sheets of the lower group, then recorded these response frequencies opposite the responses they refer to on a copy of the test.

3.7.4.1 Difficulty Level

Level of difficulty means the percentage of wrong answers to certain questions compared with the number of the examined students. The purpose of this measurement is to omit the inappropriate items. "A test item is considered

too easy if more than 80% get it right. And it is considered too difficult if fewer than 20% get it right" (Madsen,1983:180). When calculating the difficulty level of all items included in the test prepared, it was found to range between 0.37 and 0.72 with a mean score of 0.55 see Table (7) which means all items are acceptable according to Bloom, et al. (1981:95) who state that "a good spread of results can be obtained if the test items vary in difficulty from 20 to 80 per cent.

3.7.4.2 Discrimination Power

Discrimination power means the ability of the item to distinguish between the students with high grades and those with low grades (Awda, 1999: 285). After the application of the formula of the item discrimination power, the results have showed that the discrimination power of the test items ranges between 0.41 and 0.74 with a mean score of 0.53. Therefore, all the test items are acceptable as affirmed by Ebel (1972:376) who contends that the item is considered acceptable if its discrimination power is 0.30 or more see Table (7).

Table (7): Items Difficulty and Items Discrimination Level of the Achievement Test

No of item	Difficulty Level	Discrimination Power	No of item	Difficulty Level	Discrimination Power
1	0.64	0.45	31	0.48	0.51
2	0.61	0.51	32	0.51	0.44
3	0.42	0.59	33	0.62	0.51
4	0.64	0.45	34	0.51	0.44
5	0.55	0.74	35	0.62	0.51
6	0.72	0.59	36	0.51	0.64
7	0.61	0.55	37	0.48	0.39
8	0.52	0.59	38	0.51	0.41
9	0.48	0.55	39	0.37	0.58
10	0.51	0.44	40	0.61	0.61

3.7.4.3 Evaluation of Distracters

Hills (1982: 134) defines a distracter as a number of options which are presented to a testee as the possible right answer to each item in a multiple-choice test. The distracters must attract the poor students but not the better ones. Accordingly, on the basis of the answers of the pilot test testees, the researcher has found that there is only one weak distracter which no student attempted to choose it. Therefore, the researcher has changed it by another acceptable one. And the other distracters have been chosen at least by seven students.

3.8 Final Administration of the Test

After ensuring the validity and reliability of the test, the researcher administered it at the end of the experiment to the sample of the present study on

the 4th of November, 2012. The test lasted about 30 minutes. Instructions on how to answer each item were given clearly to both groups in order to avoid any misunderstanding or ambiguity. For motivation, the students were informed that a good score would be taken into consideration in the assessment of their class effort. In addition, proper testing conditions were provided to allow all testees to perform at their best under identical conditions, and to avoid any extraneous factor that may interfere as a possible variable in the discrimination of the test. Carroll, (1980:16) states that a good test is expected to "provide as much information as is required with the minimum expenditure of time, effort and resources". All students smoothly answered all items within the time allotted.

3.9 Scoring Scheme

The test consists of three questions which are divided into recognition and production questions. Most items of the test are of the kinds: multiple-choice, fill-in-the blanks, and short-answer questions. The scoring of such items is easy since they are objective. The total score of the test is 60 scores. Since the test includes 20 items, so 3 marks are given for any correct answer.

3.10 Statistics

The following statistics have been used to achieve the aims of the present study and test its hypotheses:

1. Two samples t–test of the two tailed type for independent samples has been used to test the differences between the two groups for the purpose of equivalence on certain variables such as age and level of achievement in English and to test the differences between means of students' results in the achievement test.

$$t = \frac{\overline{X}_1 - \overline{X}_2}{\sqrt{\frac{S_1^2(N_1 - 1) + S_2^2(N_2 - 1)}{N_1 + N_2 - 2}\left(\frac{1}{N_1} + \frac{1}{N_2}\right)}}$$

Where:

$\bar{x}_1 =$ mean of the group 1

$\bar{x}_2$ = mean of the group 2

S_1 = variance of the group 1

S_2 = variance of the group 2

n_1 = number of subjects in the group 1

n_2 = number of subjects in the group 2 (Glass and Stanley, 1970: 295)

2. Chi-Square (χ^2)

Chi-square for two independent samples has also been used to determine whether there are any differences between the first group and second group in certain variables such as level of parents' education.

$$\chi^2 = \frac{(O - E)^2}{E}$$

Where:

χ^2 = Value of Chi-square,

O = The observed frequencies,

E= The expected frequencies. (Issac and Michael, 1977: 138)

3. Pearson Correlation Coefficient:

It is used to measure the reliability of the post test using the mark-remarked method.

$$rxy = \frac{N\sum xy - (\sum x)\,(xy)}{\sqrt{\left[N\sum x^2 - (\sum x)^2\right] - \left[N\sum y^2 - (\sum y)^2\right]}}$$

Where

r= Correlation coefficient

n= Sample size.

∑x = The sum of X scores (odd items)

∑y = The sum of Y scores (even items)

∑x2 = The sum of the squares of X scores

∑y2 = The sum of the squares of Y scores

∑xy = The sum of the products of X and Y scores for each student.

Glass and Stanley (1970: 119)

4. Difficulty Equation

It is used to measure the difficulty level of the post achievement test items.

$$DL = \frac{HC + LC}{N}$$

Hc = high correct

Lc = low correct

N = total number of testees. (Madsen,1983:181)

5. Discrimination Equation:

It is used to measure the discrimination power of the post achievement test items.

$$DE = \frac{N_1 - N_2}{N/2} x100$$

DE= Discrimination power equation.

N1 = The sum of the right answers of the upper group.

N2 = The sum of the right answers of the lower group.

N = The total number of the sample.

(Gronlund: 1976: 267-268)

4.1 Results :

To achieve the aim of the study and verify its hypothesis, the researcher has used the mean , standard deviation and the t- test for two independent samples. Besides, data was treated by using the statistical programme known as “the statistical package for social sciences” (SPSS). It has been found that there is a

significant difference between the two groups since the calculated t-value (3.207) is higher than the tabulated t-value (2.000) and it is in favour of the first group since the mean score of the first group is higher than the mean score of the second group. Therefore, the null hypothesis that is presented earlier is rejected. see Table (8):

Table (8): The Mean, SD, and t-Value of the Post-Test Scores of the first Group and the second Group.

Groups	Number	Mean	SD	D F	T-Value	
					Computed	Tabulated
Group 1	30	37.93	6.60	58	3.207	2.000
Group2	30	32.67	6.78			

4.2 Discussions of the Results

As shown earlier in the statistical analysis of the data obtained, there is a significant difference between the mean score of the students of the first group who received comparative organizers and that of the second group who received expository organizers in favour of the first group. This means that comparative organizers which are used by the researcher in the experiment have proven effective since the achievement of the study subjects has improved in the post-test administered at the end of the experiment. The findings also reveal a remarkable and significant improvement in grammar. This may be attributed to the fact that comparative organizers help the teacher draw his students' attentions and attitudes towards the material to be taught since these organizers give them opportunities to link the new material with their background knowledge.

4.3 Conclusions

In the light of the preceding results, the following conclusions are put forward:

1- advanced organizer strategies are useful and can bring about good results if they are correctly used by teachers.

2- advanced organizer method reinforces students' self confidence and abilities to construct rules and examples based on their schemata.

3-Comparative advanced organizer encourages critical thinking in students since they can express their background knowledge and ideas freely.

4- advanced organizer strategies make the students take more responsibility for their own learning and share their information.

5-Using such strategies strengthens the relationships between the students and their teachers, and create an atmosphere of intimacy. Boredom and psychological barriers on the part of the students can be broken in this way. Such strategies encourage the spirit of cooperation .

4.4 Pedagogical Recommendations

In the light of the findings of the present study, a number of pedagogical implications and recommendations can be drawn:

1-Teachers are highly required to implement advanced organizer strategies to encourage the students to link the new material with what they have already known.

2- Teachers are also recommended to select the most interesting, suitable and familiar techniques to students. This motivates them to learn. Teachers should be encouraged to use these teaching techniques in their classrooms to help students improve their achievement.

3-Teachers should do their best to organize and manage the instructional materials in the way that copes with the students' intellectual abilities.

4-Textbook authors should adopt advanced organizer strategies in presenting materials in the textbooks to meet most of students' needs in secondary schools.

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Appendix
The Post Achievement test in Grammar

Q1/ Do as required : ***(18 M)***

1-Hassan (watch) television every day. (present simple)
2-She (work) in Baghdad . (present simple / Question)
3-I (not write) the lesson. (present continuous / Negative)
4-He (fail) his exams . (present perfect)
5-You (feed) the cat . (present perfect / Question)
6- I give the children presents. (Passive voice)

Q2/ Complete the sentences by choosing the correct answer: **(24 M)**

1-We…………………………. by our teacher.
(have met , meet , were met)
2-You ………………..…. go to school because you are ill.
(can , can't , should)
3- I'm not good at football ……………….….. my brother is a very good footballer.
(and , because , but)
4- I like doing sport………………….………… it helps me to relax.
(so , because , but)
5- We always ………………….……… parachuting on Thursdays.
(are going , went , go)
6-Kate ……………..……… to school now.
(has walked , is walking , was walking)
7-They have …………………………. the game.
(win , wins , won)
8- He is eating ……………………………
(at the moment , tomorrow , yesterday)

Q3/ Put the words of the sentences in the correct order. ***(18 M)***

1- chicken / lunch / often / cook / we / for
2- reads / exams / Selwa / usually / for / her
3- doing / am / now / my / I / homework
4- is / football / he / the / at / moment / playing
5- on / I / swimming / do not / go / Friday
6- Ramadhan / at / are / dates / eaten